I/We Claim:

1. A communications architecture comprising:

at least one customer premises equipment interface device coupled to a digital subscriber line modem, the interface device being connected to one end of a single coaxial cable;

a facilities management platform arranged to provide integrated voice and data signals from customer premises equipment to at least one network;

a main distributing frame connected to another end of the single coaxial cable to terminate a plurality of different telecommunication wirings, the main distributing frame to provide a connection between the customer premises equipment interface device and the facilities management platform;

a router within the facilities management platform for transmitting integrated voice and data packet signals from customer premises equipment to a network of the at least one network simultaneously with transmitting voice signals received from customer premises equipment to a public switched telephone network; and

a network server platform coupled to said facilities management platform via the packet data communications network for providing system management to the facilities management platform.

2. The communications architecture of claim 1, wherein the at least one network includes the Internet.

3. The communications architecture of claim 1, wherein the at least one customer premises equipment device comprises a multiplexer for multiplexing voice and data signals for simultaneous transmission over the coaxial cable, which is part of a cable network plant, to the facilities management platform.

4. The communications architecture of claim 3, wherein the multiplexed voice and data signals are transmitted and received by the customer premises equipment interface device by a spread spectrum multiplexing scheme.

5. The communications architecture of claim 3, wherein the multiplexed voice and data signals are transmitted and received by the customer premises equipment interface device by a time division multiplexing scheme.

6. The communications architecture of claim 3, wherein the multiplexed voice and data signals are transmitted and received by the customer premises equipment interface device by a frequency division multiplexing scheme.

7. The communications architecture of claim 3, wherein the multiplexed voice and data signals are transmitted and received by the customer premises equipment interface device by an asynchronous multiplexing scheme.

8. The communications architecture of claim 1, wherein the multiplexed voice and data signals are transmitted and received by the customer premises equipment interface device by a synchronous multiplexing scheme.

9. The communications architecture of claim 1, further comprising at least one analog telephone connected to the customer premises interface device.

10. The communications architecture of claim 1, further comprising at least one digital telephone connected to the customer premises interface device.

11. The communications architecture of claim 1, further comprising at least one video telephone connected to the customer premises interface device.

12. The communications architecture of claim 1, further comprising at least one facsimile machine connected to the customer premises interface device.

13. The communications architecture of claim 1, further comprising at least one personal computer telephone connected to the customer premises interface device.

14. The communications architecture of claim 1, wherein the customer premises equipment interface device is electronically connected to the facilities management platform

by digital subscriber line modems including said digital subscriber line modem of said customer premises interface device.

15. The communications architecture of claim 1, wherein the at least one network includes a broadband optical network.

16. The communications architecture of claim 1, wherein the public switched telephone network comprises an out of band signaling network.

17. The communications architecture of claim 1, wherein the network server platform is further arranged to launch network applications for use by other elements of the architecture.

18. The communications architecture of claim 1, wherein the at least one network further comprises a private switched telephone network.

19. The communications network architecture of claim 1, wherein said facilities management platform comprises an element of an interexchange carrier.

20. In a communication architecture comprising at least one customer premises equipment interface device coupled to a digital subscriber line modem, the interface device being connected to one end of a single coaxial cable, which is part of a cable network plant, a facilities management platform capable of separating voice signals from data packet signals and connected to another end of the single coaxial cable, the facilities management platform for interfacing with at least one network, a router within the facilities management platform for transmitting data packet signals received from customer premises equipment to a network of the at least one network simultaneously with transmitting voice signals received from customer premises equipment to a public switched telephone network, and a network server platform coupled to said facilities management platform via one of the networks of the at least one network for providing system management to the facilities management platform, a method of providing simultaneous communications over said single coaxial cable comprising the steps of:

receiving a request for one of a voice or packet data service over said single coaxial cable at one of said facilities management platform or said customer premises interface device,

permitting said one service over said single coaxial cable pair,

receiving a second request for one of a voice or packet data service over said single coaxial cable at one of said facilities management platform or said customer premises interface device and

multiplexing signals associated with said first and second services over said single coaxial cable resulting in both said services being received simultaneously by at least one user of said architecture, said signals being intelligently multiplexed such that an available bandwidth of said single twisted pair is maximized.

21. The method of claim 20, wherein the at least one network includes the Internet.

22. The method of claim 20, wherein the at least one network includes a broad band optical network.

23. The method as recited in claim 20, wherein the services comprise a voice service and a packet data service permitting a user to speak to another party and view an Internet web page on a personal computer display at the same time.

24. The method as recited in claim 20, further comprising the steps of receiving a third request for service over said single twisted cable pair and multiplexing signals associated with said first, second and third services over the coaxial cable resulting in said service being received simultaneously by at least one user of said architecture.

25. The method as recited in claim 20, wherein said first request for service comprises a request for an Internet packet data service and said second request for service comprises a request for a video service.

26. The communication architecture of claim 1, wherein the facilities management platform further comprises:

at least one line card; and

means for directly routing analog voice signals to the at least one line card.

27. The communication architecture of claim 26, wherein the at least one line card is configured to convert the analog voice signals to digital format for transmission over a network.

28. The communication architecture of claim 1, wherein the router is configured to transmit the data packet signals and the voice signals over a high speed backbone network.

29. The method of claim 20, further comprising:

directly routing analog voice signals to at least one line card within the facilities management platform for transmission over a network when a digital data link fails.

30. The method of claim 29, further comprising:

converting, by the at least one line card, of analog voice signals to digital format for transmission over the network.

31. The method of claim 20, further comprising:

transmitting, via the router, the data packet signals and the voice signals over a high speed backbone network.—